PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER	see Form PCT/ISA/220
X16846M	ACTION	as well as, where applicable, item 5 below.
International application No.	International filing date (day/month)	/year) (Earliest) Priority Date (day/month/year)
PCT/US2005/000021	18/01/2005	22/01/2004
Applicant		
ELI LILLY AND COMPANY		
This International Search Report has been according to Article 18. A copy is being tra	n prepared by this International Searc ansmitted to the International Bureau.	ching Authority and is transmitted to the applicant
This International Search Report consists	of a total of shee	ets.
X It is also accompanied by	a copy of each prior art document cit	ed in this report.
	international search was carried out c ess otherwise indicated under this ite	on the basis of the international application in the m.
The international this Authority (Rul		f a translation of the international application furnished to
b. With regard to any nucleo	tide and/or amino acid sequence o	disclosed in the international application, see Box No. I.
2. X Certain claims were four	nd unsearchable (See Box II).	
3. Unity of invention is lack	king (see Box III).	
4. With regard to the title,		
X the text is approved as sul	• • • • • • • • • • • • • • • • • • • •	
the text has been establish	ned by this Authority to read as follow	s:
E ASSI		
 With regard to the abstract, the text is approved as subsequents. 	omitted by the applicant	
	• .,	s Authority as it appears in Box No. IV. The applicant
		nal search report, submit comments to this Authority.
6. With regard to the drawings,		
a. the figure of the drawings to be pu	blished with the abstract is Figure No	D
as suggested by th		
<u> </u>	Authority, because the applicant faile	
	Authority, because this figure better	characterizes the invention.
b none of the figures is to be	published with the abstract.	

International Application No PCT/US2005/000021

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07D295/08 C07D C07D209/46 C07D209/48 C07D307/83 C07D311/78 C07D295/18 A61K31/4453 C07D333/64 C07D409/04 A61K31/4035 A61K31/381 A61K31/5375 A61P5/32 A61K31/343 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) CO7D A61K A61P IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, BIOSIS, MEDLINE, EMBASE, BEILSTEIN Data, CHEM ABS Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Category 9 Relevant to claim No. X GRESE, TIMOTHY A. ET AL: 19,36,52 "Structure-Activity Relationships of Selective Estrogen Receptor Modulators: Modifications to the 2-Arylbenzothiophene Core of Raloxifene" JOURNAL OF MEDICINAL CHEMISTRY, 40(2), 146-167 CODEN: JMCMAR; ISSN: 0022-2623, 1997, XP002050782 page 148 - page 149; compounds 10K,23A-23G Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docudocument referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 28/06/2005 8 June 2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax. (+31–70) 340–3016 vanVoorsttotVoorst,M

2

		PC1/US2005/000021
.(Continuategory °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
alegury -	Organist of Goodinest, marinological, miles appropriate, or the relevant passages	Tiologanit to Claim NO.
X	KAUFFMAN, RAYMOND F. ET AL: "Hypocholesterolemic activity of raloxifene (LY139481): pharmacol. characterization as a selective estrogen receptor modulator" JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, 280(1), 146-153 CODEN: JPETAB; ISSN: 0022-3565, 1997, XP002330951 page 151; compound 7	19
Y	VEP 0 729 956 A (ELI LILLY AND COMPANY) 4 September 1996 (1996-09-04) page 3, line 9 - line 41; claims 1-9,21	1-63
Y	EP 0 703 228 A (ELI LILLY AND COMPANY) 27 March 1996 (1996-03-27) page 3, line 15 - line 35; claims 1-10	1-63
Y	©EP 0 895 989 A (ELI LILLY AND COMPANY) 10 February 1999 (1999-02-10) page 2, line 19 - line 25; claims 1-3,5-7	1-63
Y	EP 0 761 659 A (ELI LILLY AND COMPANY) 12 March 1997 (1997-03-12) claims 1-4,8,13,14	1-63
Y	US 6 204 286 B1 (CAMERON KIMBERLY 0 ET AL) 20 March 2001 (2001-03-20) claims 1-3,16; examples 8,9	1-63
		•

International application No. PCT/US2005/000021

INTERNATIONAL SEARCH REPORT

Box II	Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X	Claims Nos.: 33,34 because they relate to subject matter not required to be searched by this Authority, namely:
	Although claims 33 and 34 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.	Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
з. 🗌	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III	Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This Inte	mational Searching Authority found multiple inventions in this international application, as follows:
. —	The state of the s
	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
	restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark c	The additional search fees were accompanied by the applicant's protest.
	No protest accompanied the payment of additional search fees.

Information on patent family members

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0729956	Α	04-09-1996	US US	5510357 A 5998441 A	23-04-1996 07-12-1999
			US	5977093 A	07-12-1999
			US	5856339 A	05-01-1999
			US	5919800 A	05-01-1999
			AT	207913 T	
			AU		15-11-2001
				699753 B2	17-12-1998
			AU	4579796 A	05-09-1996
			BR	9600829 A	30-12-1997
			CA	2170479 A1	29-08-1996
			CN	1159448 A ,	
			CZ	9600588 A3	11-09-1996
			DE	69616396 D1	06-12-2001
			DE	69616396 T2	11-07-2002
			DK	729956 T3	26-11-2001
			EP	1113013 A1	04-07-2001
			EP	0729956 A1	04-09-1996
			ES	2163587 T3	01-02-2002
			FI	960909 A	29-08-1996
			HK	1013991 A1	13-09-2002
			HU	9600448 A2	28-09-1998
			HU	9600476 A2	28-06-1999
			ΙL	117276 A	31-10-2001
			IL	132952 A	10-02-2002
			ΙL	132953 A	10-02-2002
			IL	132954 A	10-02-2002
			IN	184372 A1	12-08-2000
			JP	9183776 A	15-07-1997
			NO	960796 A	29-08-1996
			NZ	286079 A	19-12-1997
			PL	312955 A1	02-09-1996
			PT	729956 T	28-03-2002
			RU	2158737 C2	10-11-2000
			SG	64896 A1	25-05-1999
			SG	90193 A1	23-07-2002
			SI	729956 T1	30-04-2002
			TR US	960839 A2	21-10-1996
			US	6197790 B1 5985898 A	06-03-2001
			US		16-11-1999 29-02-2000
		•		6030986 A	
			US US	5969142 A	19-10-1999
				5981765 A	09-11-1999 16-11-1000
			US	5986109 A	16-11-1999
			US	5492922 A	20-02-1996
			US	5488058 A	30-01-1996
			US	5510498 A	23-04-1996
			US	5510358 A	23-04-1996
			US 	5723474 A 	03-03-1998
EP 0703228	Α	27-03-1996	AT AU	214058 T 697114 B2	15-03-2002 24-09-1998
			AU	3686395 A	09-04-1996
	-		BR	9508967 A	30-12-1997
			CA	2200449 A1	
					28-03-1996 17-12-1007
			CZ DE	9700822 A3 69525699 D1	17-12-1997
			111	095/5099 DI	11-04-2002
			DE DK	69525699 T2 703228 T3	21-11-2002 21-05-2002

Information on patent family members

			T		Z005/0000Z1
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0703228	A		EP ES HU IL JP NO NZ PT RU SI TR WO US	0703228 A1 2173154 T3 77919 A2 115335 A 128310 A 10506392 T 971278 A 294177 A 331264 A 319454 A1 703228 T 2165924 C2 703228 T1 960231 A2 399036 B 9609039 A1 6437137 B1 5484795 A	27-03-1996 16-10-2002 28-10-1998 26-07-2000 20-05-2001 23-06-1998 14-05-1997 28-10-1998 25-08-2000 04-08-1997 31-07-2002 27-04-2001 31-08-2002 21-06-1996 21-07-2000 28-03-1996 20-08-2002 16-01-1996
			US US US ZA	5484796 A 6410564 B1 5484797 A 9507857 A	16-01-1996 25-06-2002 16-01-1996 18-03-1997
EP 0895989	Α	10-02-1999	AU CA EP JP WO US	8683398 A 2298651 A1 0895989 A1 2001513501 T 9907377 A1 6509356 B1	01-03-1999 18-02-1999 10-02-1999 04-09-2001 18-02-1999 21-01-2003
EP 0761659	A	12-03-1997	AT AU BR CA CDE DE EP ES HU JP NO NZ PL WO US	240948 T 703317 B2 6682196 A 9609844 A 2228178 A1 1198668 A 9800276 A3 69628246 D1 69628246 T2 0761659 A1 2198462 T3 9802408 A2 11510798 T 980395 A 315174 A 324816 A1 2167158 C2 9800132 T1 9704763 A1 5811421 A	15-06-2003 25-03-1999 26-02-1997 09-03-1999 13-02-1997 11-11-1998 15-07-1998 26-06-2003 25-03-2004 12-03-1997 01-02-2004 28-01-1999 21-09-1999 26-03-1998 29-07-1999 22-06-1998 20-05-2001 21-05-1998 13-02-1997 22-09-1998
US 6204286	B1	20-03-2001	US AT CA DE DE DE DK EP	5552412 A 214382 T 2209925 A1 69525857 D1 69525857 T2 802910 T3 0802910 A1	03-09-1996 15-03-2002 18-07-1996 18-04-2002 28-11-2002 21-05-2002 29-10-1997

Information on patent family members

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 6204286 B1		FI	972903 A	08-07-1997
]		JP	2972347 B2	08-11-1999
		JP	10503215 T	24-03-1998
		US	6153622 A	28-11-2000
		AP	592 A	05-05-1997
		ΑU	700982 B2	14-01-1999
		ΑU	4091696 A	18-07-1996
		BG	62256 B1	30-06-1999
		BG	100278 A	31-05-1996
		BR	9600079 A	27-01-1998
		CN	1136562 A ,C	27-11-1996
		CZ	9600055 A3	16-10-1996
		EP	1151998 A1	07-11-2001
		ΕP	1411049 A1	21-04-2004
		ES	2172579 T3	01-10-2002
		HR	960010 A1	31-12-1997
		HU	9600056 A2	28-12-1998
		WO	9621656 A1	18-07-1996
		ΙL	116643 A	13-08-2000
		ΙL	130761 A	06-12-2000
		KR	190727 B1	01-06-1999
		LV	11460 A ,B	20-08-1996
		MA	23768 A1	01-10-1996
		NO	960081 A	10-07-1996
		NZ	280792 A	24-11-1997
		OA	10254 A	19-09-1997
		PL	312182 A1	22-07-1996
		PT	802910 T	31-07-2002
		RO	116275 B	29-12-2000
		RU	2130454 C1	20-05-1999
		SG	47377 A1	17-04-1998
		SI	9600004 A	31-10-1996
		SK	164895 A3	07-05-1997
		TR	960693 A2	21-08-1996
		US	2002132816 A1	19-09-2002
•		US	64 4 1193 B1	27-08-2002
		ZA	9600095 A	08-07-1997
			A0000A2 H	UO-U/-199/